Work Order ID 95656 *95656* January-16-13 8:36:21 AM Page 1 Item ID: D2327-1 Accept *N900040100* Setup Start **Revision ID:** Item Name: Spacer Bushing **Start Date:** 1/16/13 **Start Qty: 20.00** *20* **Cust Item ID:** Required Date: 1/23/13 Req'd Qty: 20.00 *20* **Customer:** Reference: Run Start Process Plan: MLJ ___ Date: 13-01-16 Tooling: Approvals: Date: QC: ______ Date: ____ SPC (Y/N): Stop Date: Sequence ID/ Operation Set Up/ Tool ID Tool # Plan Accept Reject Reject Insp. **Work Center ID** Description **Run Hours** Code Qty Qty Number. Stamp Draw Nbr **Revision Nbr** D2327 Rev D 100 0.00 A13-01-23 20 0 *100* Hardinge CNC LATHE SMALL Hardinge 0.00 Memo Hardinge CNC Lathe Small Turn per Folio FA232 and Dwg D2327 Deburr BOTH ENDS 110 QC2- Inspect parts off machine FAI/FAIB 0.00 *110* 20 8 13-01-23 QC 0.00 Memo Quality Control 120 QC8- Inspect parts - second check 0.00 *120* 13-1.18 QC 0.00 Memo Quality Control

1

										DQ	A:	Date:	
NCR: Y	es / No				WORK ORDER NON-O	CONF	ORN	MANCE / UPD	ATE	QA Close	vq.	Date:	
					DISPOSITION AGAINST D					DEPARTMENT/PROCESS			
Work Orde	er:		_		DISPOSITION AGAINST I			AGAINST DI	- -	VI/PROCESS	,		
Part N					Rework Scrap Use-as-is Work Order Update	Scrap Machining Small Fab Use-as-is Thermoforming Finishing			Small Fab	Prod. Eng. Coor. Rec/Store/Packaging			Engineering Quality Other
Dood			1	Danasi	ation of word and an address		:-1 [A -+:-					
Root Cause	Date	Step	Qty		ption of work order update or Non-conformance	Init Chief	1	Actio		Sign & Date	Verifica	ation.	OC Inchestor
Doc/Data	Date	step	Qty		or Non-comormance	Cillei	EIIB	Descrip	HOTI	Date	verince	ition	QC Inspector
Equip/Tooling													
Operator													
Material													
Setup													
Other													
Process							1						
Supplier	_						.						
Training													
Unapproved													
	1,	<u> </u>			F.	AULT (CATE	GORY					
Landir	ng Gear				General								
	Bending				Bend	Gr	rain			Ovalized			Pressure/Forced
	Centre Not Concentric to O/S			BOM/Route	На	erdwai	·e		Over/Und	der tolerance		Temperature/Cure	
	Cracks			Broken/Damaged	Ins	specti	on Incomplete		Part Inco	rect		Weld	
	Crushed/	Crimped.			Burrs	Ins	structi	ons Incomplete/Un	ıclear	Part Lost,	Missing		Wrong Stock Pulled
[Cuffs				Contamination	М	ainte	nance		Part Mov	ed	-	_
	Heat Trea	at			Countersink	Мі	islabel	ed		Positione	d Wrong		
	Inspectio	n Strip in	Tube		Cut Too Short	Мі	isread			Power Lo	ss/Surge		Other
				Drill Holes	Of	Offset			_				

Out of Calibration

Out of Sequence

Outside Dimensions

Turning Sequence

Wave/Twist in Tube

Torque Waves in Extrusion

Drawing

Finish

Folio

H:/FORMS/Quality Assurance\approved QA/NCRWO Rev G

QC

Quality Control

Memo

January-16-13 8:36:21 AM Item ID: D2327-1 Accept *N900040100* Setup Start Revision ID: Item Name: Spacer Bushing **Start Date:** 1/16/13 **Start Qty: 20.00 Cust Item ID:** Required Date: 1/23/13 Req'd Qty: 20.00 **Customer:** Reference: Run Approvals: Process Plan: Date:____ Tooling: Date: QC: _____ Date: SPC (Y/N): Date: Sequence ID/ Operation Set Up/ Tool ID Tool # Plan Reject Accept Reject Insp. **Work Center ID** Description **Run Hours** Code Qty Qty Number Stamp 130 Identify as per dwg & Stock Location:_____ 0.00 *130* Packaging 0.00 Memo Packaging *****STOCK IN BASKET CELL**** 140 QC21- Final Inspection - Work Order Release 0.00

0.00

Moors

NCR:	NCR: Yes / No WORK ORDER NON-CONFORMANCE / UPDATE													
											QA Closed:	Date	:	
Work Ord	er: .					DISPOSITION		AGAINST DEPARTMENT/PROCESS						
Part No				Rework Scrap Use-as-is Work Order Update	Machining Small F Thermoforming Finishi		Crosstube Small Fab Finishing Composite	Water Jet Prod. Eng. Coor. Rec/Store/Packaging Supplier		Engineering Quality Other				
Root						ption of work order update	i	nitial		ion	Sign &			
Cause		Date	Step	Qty	(or Non-conformance	Ch	ief Eng	Desci	ription	Date	Verification	QC Inspector	
Doc/Data														
Equip/Tooling							ļ							
Operator								:						
Material	Ш													
Setup	Щ										·			
Other	Ш						-							
Process	Ш													
Supplier	Щ													
Training	Щ													
Unapproved													1	
			· · · · · · · · · · · · · · · · · · ·				AUL	T CATE	GORY					
Landi					_	General		7		_	1	_	_	
	├ ──┤	Bending			·	Bend	\vdash	Grain			Ovalized		Pressure/Forced	
	Н	Centre No	ot Concer	ntric to C	D/S	BOM/Route	L	Hardwa	re		Over/Under	tolerance	Temperature/Cure	
	${f -}$	Cracks			<u> </u>	Broken/Damaged		1	on Incomplete		Part Incorre	ct	Weld	
	Crushed/Crimped Burrs Cuffs Contamination			<u></u>	1	ions Incomplete/l	Jnclear	Part Lost/Mi	ssing	Wrong Stock Pulled				
			Contamination		Mainte	enance		Part Moved						
	Н	Heat Trea			<u> </u>	Countersink		Mislabe			Positioned V		_	
	_	Inspection	•	Tube	<u> </u>	Cut Too Short	<u></u>	Misread	d		Power Loss/	Surge	Other	
		Ripples in	Bend			Drill Holes	L	Offset						
		Torque W	aves in E	xtrusion	· <u>L</u>	Drawing		Out of (Calibration					
	Turning Sequence Finish			Finish		Out of S	Sequence							

Outside Dimensions

DQA:

Date:

Wave/Twist in Tube

Folio

H:/FORMS/Quality Assurance\approved QA/NCRWO Rev G

Picklist Print

January-16-13 8:36:25 AM

Work Order ID: 95656

Parent Item:

D2327-1

Parent Item Name: Spacer Bushing

95656

D2327-1

Start Date: 1/16/13

Required Date: 1/23/13

Start Qty: 20.00

Required Oty: 20.00

Comments:

IPP D05.11.02Removed 303 SSKJ/EC

IPP Rev:E

Removed 303SS JLM

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Status Issued
M304R0.375		Purchased	No			100	f	106.3160	0.1771	3.728421		
M304R0 : 304 ROUND BAR 0.375	375								**	3.583		ff13-01-18

Location	Loc Oty	Loc Code	
MAT029	106.316		
119346	2.328		,
120204	5.442		
121380	3.846		- · · · · · · · · · · · · · · · · · · ·
123294	94.7		3.583'

NCR:														
		··									QA Closed:	Dat	te:	
Work Orde	or.					DISPOSITION		AGAINST DEPARTMENT/PROCESS						
Part No						Rework Skid-tube Crosstube Scrap Machining Small Fab Use-as-is Thermoforming Finishing Work Order Update Large Fab Composite			Pro Rec/Stor	Engineering Quality Other				
Root					Descri	otion of work order update	Ti	Initial	Acti	on	Sign &			
Cause		Date	Step	Qty	C	or Non-conformance	Ch	ief Eng	Descri	ption	Date	Verification	n QC Inspector	
Doc/Data Equip/Tooling Operator Material Setup Other Process Supplier Training Unapproved						F	AUL	T CATE	GORY					
Landii	ng G	Gear				General			,					
		Bending Centre Not Concentric to O/S Cracks Crushed/Crimped. Cuffs Heat Treat		Bend BOM/Route Broken/Damaged Burrs Contamination Countersink		Grain Hardware Inspection Incomplete Instructions Incomplete/Unclear Maintenance Mislabeled		Inclear	Over/Under tolerance Part Incorrect		Pressure/Forced Temperature/Cure Weld Wrong Stock Pulled			
		Inspection	n Strip in	Tube		Cut Too Short		Misread	I		Power Loss/	Surge	Other	
		Ripples in	Bend			Drill Holes		Offset						
			Drawing		Out of Calibration									

Out of Sequence

Outside Dimensions

DQA:

Date:

Turning Sequence

Wave/Twist in Tube

Finish

Folio

H:/FORMS/Quality Assurance\approved QA/NCRWO Rev G

DART AEROSPACE LTD	Work Order:	95656
Description: Spacer Bushing	Part Number:	D2327-1
Inspection Dwg: D2327 Rev: D		Page 1 of 1

FIRST ARTICLE INSPECTION CHECKLIST

X First Article Prototype

Drawing Dimension	Tolerance	Actual Dimension	Accept	Reject	Method of Inspection	Comments		
Ø0.375	+/-0.010	.375 .257 2.0015	/		SLO8	Vein		
Ø0.257	+0.005/-0.000	,257						
2.000	+/-0.010	2.0015	1					
		 	<u> </u>					
=								

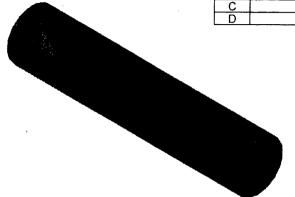
\sim				
Measured by:	Audited by:	Ų-:	Prototype Approval:	N/A
Date: 13-01-18	Date:	3.1.18	Date:	N/A

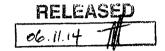
Rev	Date	Change	Revised by	Approved
Α	03.11.27	New Issue	KJ/RF	
В	06.11.24	Dwg Revision revised	KJ/JLM	
С	08.02.01	Tolerance revised for Ø0.375	KJ/EC/DD	17



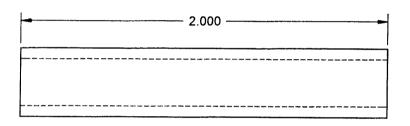
	DESIGN BW	DRAWN BY	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA						
	CHECKED	APPROVED	DRAWING NO. D2327	REV. D SHEET 1 OF 1					
	DATE 06 .	10.12	SPACER BUSHING	SCALE 2:1					
_	DEV	DATE	DECODIDATION						

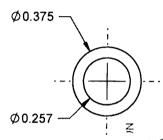
DESCRIPTION 94.12.17 **NEW ISSUE** LENGTH CHANGE 303 SS SPEC ADDED REMOVE 303 SS MATERIAL 95.12.06 03.05.13 В C D 06.10.12



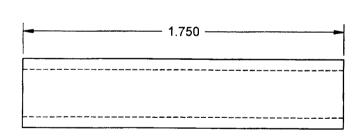


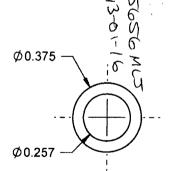
SUBJECTIV





D2327-1 SPACER BUSHING





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D2327-3 SPACER BUSHING

NOTES:

1) MATERIAL: AISI 304/316 SS, ϕ 0.375, 0.065 WALL SEAMLESS ROUND TUBING (REF. DART SPEC M304TR0.375W.065)

2) FINISH: NONE

3) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED 4) ALL DIMENSIONS ARE IN INCHES UNLESS OTHERWISE NOTED 5) BREAK ALL SHARP CORNERS TO 0.010 MAX

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